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The ethics of environmental education: Examining the implications of EHE within Ontario EcoSchools curriculum

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Introduction

Research question: What are the opportunities provided – or hindered – by EcoSchools curriculum resources to address human environmental health ethics (EHE) across certified elementary schools in the Toronto District School Board?

Why study the link between EHE and environmental education?

As humans, we have come to rely on a number of ecosystem services for our survival (Levy, Daily & Myers, 2012). Therefore when the health of the environment is threatened, human health is inevitably affected. In order to take the initiative to protect the environment, we must first recognize its intrinsic value. EHE deals with this value that humans place on the natural world (Resnik, 2012). However, how do we ensure that today's youth, who spend much of their time indoors, form a connection with the environment and that they determine that it has intrinsic value? Ontario EcoSchools is a K-12 education and certification program that aims to get students and communities more involved in sustainability. One way in which the organization is attempting to foster a connection to the environment is through environmental education, which stems from a number of curriculum resources. After all, if today's children are not connected to the environment, how will they know, or even care, to protect it?



Methods

Content Analysis

Read through of curriculum resources

highlight and note information relevant to research question

Identification of themes (i.e. key terms) corresponding directly to the research question

environmental health ethics, ethics and environmental health

Frequency of themes recorded along with the sentence in which it appeared so context was clear

E.g. "Exploring local places can help students to feel a connection to the natural world and develop a "sense of place." This exposure can sensitize students and help to lay the foundation for an **ethic** of care and stewardship for the natural world." (Toronto District School Board, 2011, p. 47)

E.g. "Our current systems of food production, distribution and consumption impact our human and **environmental health** both positively and negatively." (Back to Nature Network, 2012, p. 79)

Results

The term "environmental health ethics" as a whole did not appear in the EcoSchools curriculum documents. However, the following terms linked to EHE were present: "ethics," "environmental health," "healthy environment," "health of the environment," "health of the soil," "health of all living things" and "healthy functioning of the Earth's living systems". Their frequencies are examined below (Figure 1).

Frequency of Coded Data within EcoSchools Curriculum Documents

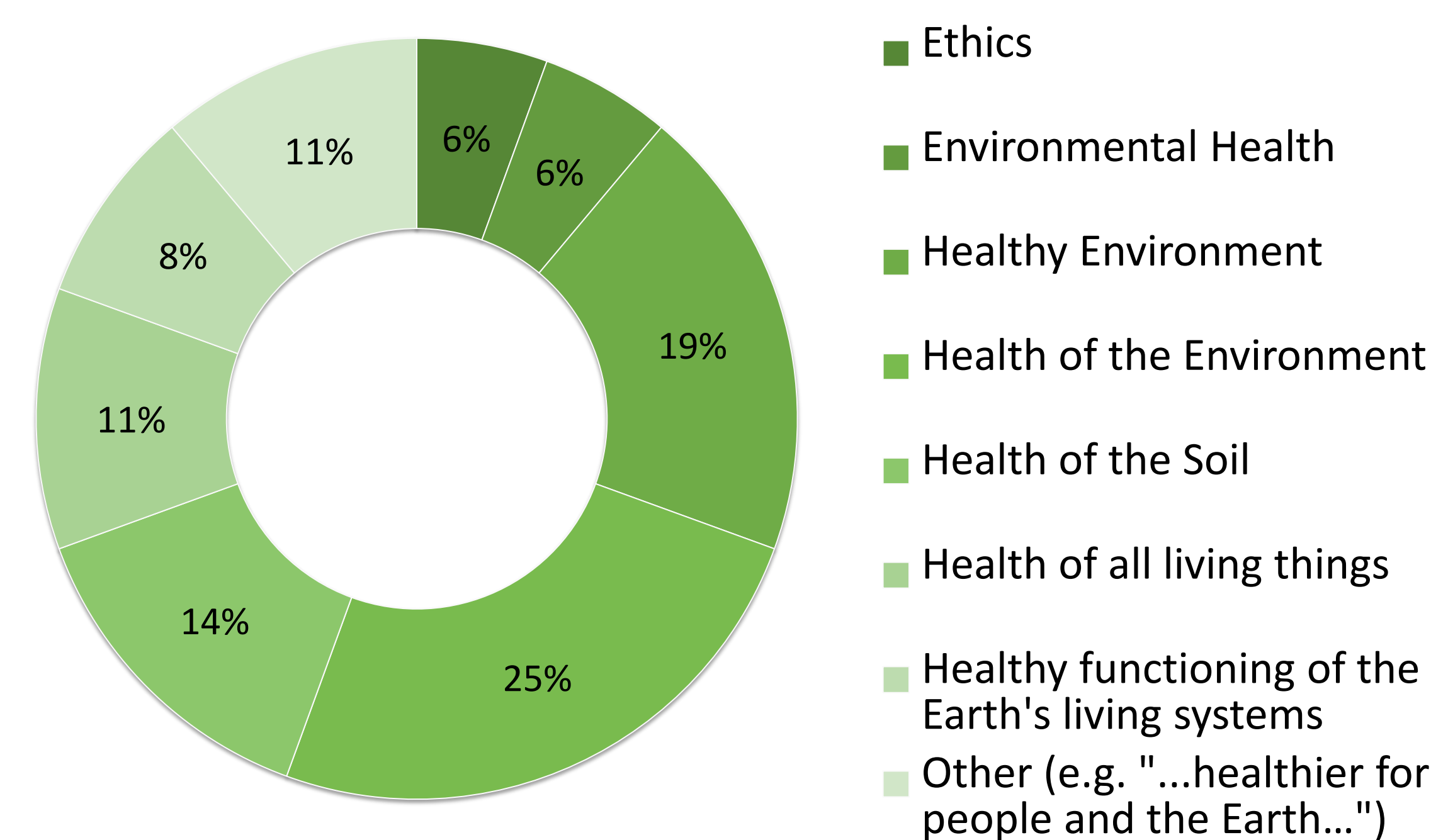


Figure 1. Frequency of "ethics" and "environmental health" coded data within EcoSchools curriculum documents.

Ethics only appears with a qualifier (i.e. "conservation", "care" and "stewardship"), suggesting that one of the goals of the environmental education curriculum, in terms of ethics development, is to make students realize that the earth and its resources need to be protected and cared for. For example: "Experiences in nature once per week are essential to the development of *conservation ethics*." (Back to Nature Network, 2012, p.7)

Environmental health does not appear in conjunction with "ethics". That is, there is no explicit link between environmental health and ethics in Ontario EcoSchools curriculum documents. Furthermore, there is no concrete definition of "environmental health" given within the documents. For example, "Clean air and clean water are very important for the health of all living things – but we can spoil the air and water through pollution." (Toronto District School Board, 2012, p. 15) In this context, it is difficult to determine the meaning of the word "health". Furthermore, it is not clear whether "...the health of all living things" applies only to humans and animals or if the natural environment (e.g. ecosystems, animal habitats, etc.) are also taken into account.

Discussion

Ethics: The qualifiers associated with "ethics", that is "conservation", "care" and "stewardship", indicate that a sense of worth and importance are being attributed to the natural environment. Furthermore, quotes taken from the curriculum documents indicate a need to go outdoors in order to explore and experience nature. For example, "*Experiences in nature once per week* are essential to the development of conservation ethics." (Back to Nature Network, 2012, p.7) This leads us to conclude that a connection to the environment is best developed outside the classroom.

Environmental Health: Based on Lucie Sauvé's (2005) discussion of currents in environmental education, "environmental health" data falls into one of three categories: nature-centered, human-centered or both. Nature-centered data puts the natural world at the forefront and gives little mention to human needs. Human-centered data, on the other hand, considers human health before that of the environment. Data that was placed in the "both" category indicate benefits for both parties. Their frequencies are examined below (Figure 2) and indicate that most of the data collected fits into the "both" category.

Category and Frequency of "Environmental Health" Perspectives Data within EcoSchools Curriculum Documents

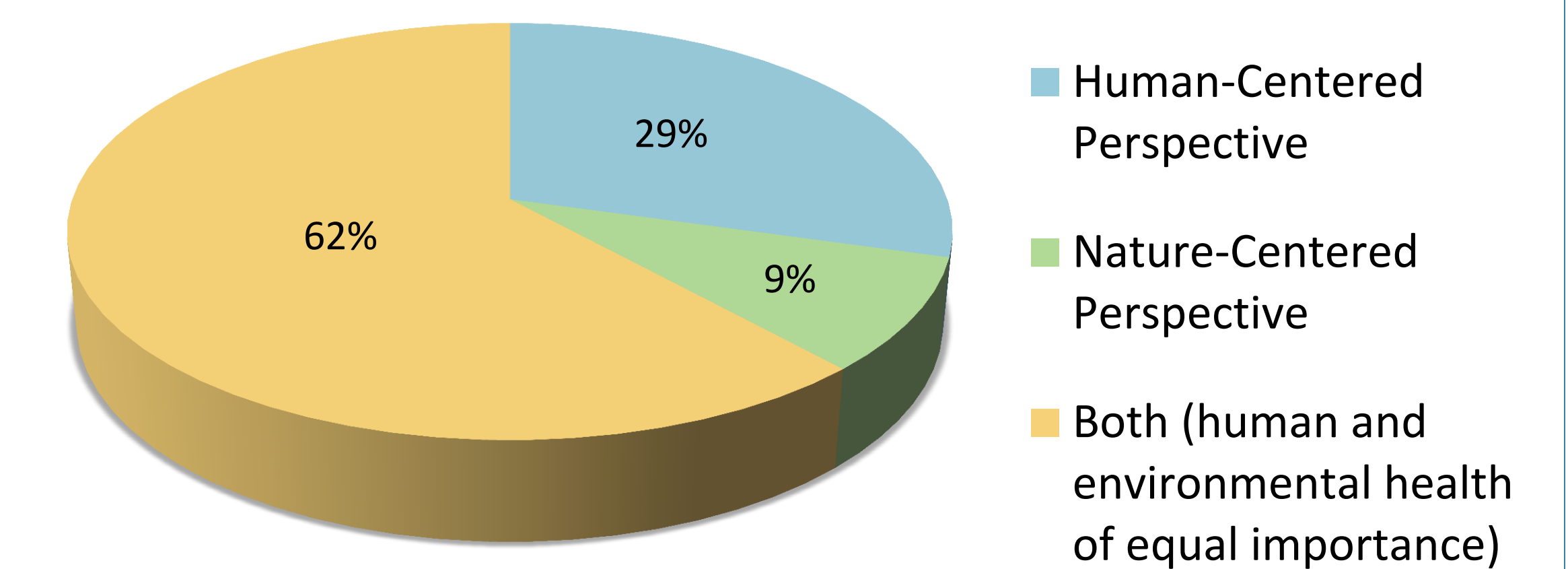


Figure 2. Frequency of "human-centered", "nature-centered" and "both" "environmental health" perspectives data within EcoSchools curriculum resources

Conclusions

We can now clarify that EHE is nature-centered as much as it is human-centered. In other words, both are considered of equal importance when recognizing nature's intrinsic value. Nevertheless, how do we ensure that students do form a connection with nature and that they do determine that it has value? We have already concluded that outdoor education is a very important step in developing EHE among elementary students. However, currently there is no explicit link made between environmental health and ethics within the curriculum documents. Therefore, more research is needed in order to determine whether or not this link is being made.

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